Remarks

Reconsideration of the present application is respectfully requested for the reasons that follow.

Rejections under 35 USC § 112, second paragraph

Claims 1-11, 13-16, 18-21 and 23-44 are pending in the application. The Examiner has rejected all of the pending claims under 35 USC § 112, second paragraph, as allegedly indefinite for the following various reasons.

The Examiner has rejected claims 1, 6, 34, 36-37 and 43-44 for including both a "hydrophobic materials" limitation and a "hydrophobic polymers" limitation. The Examiner argues that the "hydrophobic materials" limitation is broad and necessarily encompasses the narrower "hydrophobic polymers" limitation thus rendering the claims indefinite. In support of his argument, the Examiner cites a BPAI decision which indicates that using exemplary language in a claim renders that claim indefinite. Applicants note that the rejected claims here do not include such exemplary language. Further, Applicants disagree with the Examiner's interpretation of the claims. However, solely in the interest of expediting prosecution, Applicants have amended claims 1, 6, 34, 36 and 43-44 to remove the "hydrophobic polymers" limitation. Therefore, this rejection has been obviated and it should be withdrawn. Claim 37 has apparently been included in this rejection since it depends from claim 36. As such, the amendment to claim 36 obviates the rejection of claim 37 as well. Finally, claim 38, which was not included in the rejection, also recited the "hydrophobic polymers" limitation. Applicants have likewise amended claim 38 to remove that limitation. In addition, Applicants have amended dependent claims 30, 31 and 41 to add "polymers" as a limitation. Written

description support for these amendments can be found in the specification as filed on p. 8, para. 3. No new matter is added by these amendments.

The Examiner has rejected claims 1, 6, 34, 36-37 and 43-44 for including the limitations "(un)modified carbohydrates" and "(un)modified proteins." The Examiner argues that it is not clear how the parenthetical text affects the limitations, thus rendering the claims indefinite. Applicants disagree with the Examiner's conclusion that these limitations are indefinite. However, solely in the interest of expediting prosecution, Applicants have amended claims 1, 6, 34, 36 and 44 to replace the above limitations with "modified or unmodified carbohydrates" and "modified or unmodified proteins," respectively. Written description support for these amendments is at least in the immediate prior version of these claims. Therefore, this rejection has been obviated and it should be withdrawn. Claim 37 has apparently been included in this rejection since it depends from claim 36. As such, the amendment to claim 36 obviates the rejection of claim 37 as well. Finally, the inclusion of claim 43 in this rejection seems to be an error as claim 43 does not include the "(un)modified …" limitations. In addition, Applicants have amended dependent claims 13, 14, 33, 40 and 42 so that the "carbohydrates" and "proteins" limitations have proper antecedent basis. No new matter is added by these amendments.

The Examiner has rejected claims 1, 6, 34, 36 and 43-44 for including the limitation "stabilizing." The Examiner argues that it is unclear what that limitation is referring to, thus rendering those claims indefinite. Applicants disagree with the Examiner's interpretation of the claims. However, solely in the interest of expediting prosecution, Applicants have amended claims 1, 6, 34, 36 and 44 to indicate that the matrix is stabilized against hydrolysis and oxidation. Written description support for this amendment can be found in the specification as filed at least at p. 6, para. 1 and in Examples 2 and 3. Therefore, this rejection has been obviated and should be withdrawn. The inclusion of claim 43 in this rejection seems to be an error as claim 43 in

its present form already refers to "hydrolysis and oxidation," contrary to the Examiner's comments in the Office Action at p. 4, section 4. No new matter is added by these amendments.

The Examiner has rejected the claims for reciting "polyphenols, trace elements and mineral substances." The Examiner has not indicated which claim or claims this rejection is referring to, but since these limitations only appear in claim 44, Applicants will direct the following comments to that claim. The Examiner argues that these limitations render the claim indefinite because it is not clear how their metes and bounds are defined. The Examiner has not articulated any reasoning that would support this assertion, nor can Applicant surmise what that might be. Applicants note that all three of these limitations are standard chemistry terms and are understood by those of skill in the art. Should the Examiner maintain this rejection in the next Office Action, Applicant requests that the Examiner provide an additional explanation as to why these limitations are allegedly deficient.

Rejections under 35 USC § 102(b)

The Examiner has rejected claims 1-11, 15-16, 18, 21, 23, 29-31, 34, 36, 38-39, 41 and 43-44 under 35 USC § 102(b) as being anticipated by JP9107888. JP9107888 is directed to a powder containing lecithin. The Examiner argues that JP9107888 teaches all of the elements of independent claims 1, 6, 34, 36, 38, 43 and 44 thus anticipating them. However, the Examiner does not address at least the following limitations of the independent claims: in claim 1, the limitations regarding ≥ 5 % by weight, stabilizing matrix and bioactive component; in claim 6, the limitations regarding ≥ 5 % by weight, stabilizing matrix, bioactive component and specialized food; in claim 34, the limitations regarding ≥ 5 % by weight, stabilizing matrix, and bioactive component; in claim 36, the limitations regarding ≥ 5 % by weight, stabilizing matrix and bioactive component; in

claim 38, the limitations regarding ≥ 5 % by weight, stabilizing matrix and bioactive component; in claim 43, the limitations regarding ≥ 5 % by weight, stabilizing matrix, and bioactive component; and in claim 44: the limitations regarding ≥ 5 % by weight, stabilizing matrix, bioactive component, proteins (as defined by the Markush group) and hydrophobic materials (as defined by the Markush group). Thus, because JP9107888 does not address at least these limitations in the independent claims, it cannot anticipate these claims, or the claims which depend from them. The claim amendments discussed above relating to "stabilizing" serve to further distinguish the present claims from JP9107888.

Finally, solely in the interest of expediting prosecution, Applicants have amended the independent claims to require that they include a limitation wherein the matrix is represented by microcapsules with a specific diameter and is coated. There is written description support for these amendments in the specification as filed at least at p. 10, para. 3 and p. 7, para. 3. No new matter is added by this amendment. As a result of this amendment, claims 8, 19 and 25 have been canceled. This amendment to the independent claims serves to further distinguish the present claims from JP9107888. Specifically, JP9107888 discloses a powder and not a coated microcapsule which may contain lecithin. JP9107888 does not teach a coated microcapsule having a matrix which renders phospholipids stable against oxidation and hydrolysis. Further, JP9107888 is directed to enabling the addition of a large amount of lecithin as well as about improving the texture and the keeping quality of powder formulations containing lecithin as well as reducing its scorching and mold releasability. As it is directed to an entirely different purpose than the presently claimed subject matter, one of skill in the art would not look to the teachings of JP9107888 to aid the development of the presently claimed subject matter. Therefore, in view of the deficiencies discussed above and the present claim amendments JP9107888 does not disclose all of the elements of the independent claims and cannot therefore anticipate them or the claims which depend from them. This rejection should be withdrawn.

Rejections under 35 USC § 102(e)

The Examiner has rejected claims 1-11, 15-16, 18, 21, 23, 29-31, 34, 36, 38-39, 41 and 43-44 under 35 USC § 102(e) as being anticipated by Friedman (US Patent App. No. 2003/0021881). Friedman is directed to a homogeneous solid matrix with improved dispersion and taste masking. The Examiner argues that Friedman teaches all of the elements of independent claims 1, 6, 34, 36, 38, 43 and 44 thus anticipating them. The independent claims have been amended as discussed above. As such, Friedman does not disclose at least the limitation relating to stability against oxidation and hydrolysis, the limitation relating to microcapsules having an average size 0.5 and 500 μm and the coating limitation. Consequently, this rejection should be withdrawn.

In addition, Applicants have added new dependent claims 45-51 which require that the coating is to a natural vegetable fat coating. There is written description support for this amendment in the specification as filed at least in Example 1. No new matter is added by these amendments. These dependent claims are directed to additional embodiments of the claimed subject matter which are even further distinguished from Friedman, and from JP9107888.

Rejections under 35 USC § 103(a)

The Examiner has rejected claims 1-11, 14-16, 18, 20-21, 23-24, 26-32, 34-39, 41 and 44 under 35 USC § 103(a) as being obvious over Kiliaan (WO 01/84961) alone, or alternately in further view of Friedman (US Patent App. No. 2003/0021881). Kiliaan is directed to a preparation for the prevention or treatment of vascular disorders comprising fatty acids, phospholipids and compounds which affect methionine metabolism. Friedman is discussed above. At least in view of the claim amendments

discussed above, Kiliaan either alone or in combination with Friedman, has certain deficiencies. Specifically, neither Kiliaan nor Friedman teach or suggest a phospholipid containing matrix which render said phospholipids stable against oxidation and hydrolysis. Moreover, neither Kiliaan nor Friedman address microcapsules, let alone microcapsules having an average particle size between 0.5 to 500 μm, nor do they disclose any coated systems.

Further, the disclosure in Friedman is focused on improving the overall stability or bio-compatibility, as well as the taste masking of drugs. This differs from the presently claimed subject matter which include functional foods in which substantial amounts of phospholipid are present in such a way that they are protected against hydrolytic and oxidative degradation. Thus, whereas with the presently claimed phospholipids are the bioactive component, in Friedman a very specific phospholipid, lecithin, is used for a completely different purpose. Therefore, one of skill in the art would not be motivated to combine the disclosure of Kiliaan with the disclosure of Friedman to arrive at the presently claimed subject matter.

As such, in view of the above arguments and claim amendments, this rejection has been obviated and should be withdrawn.

The Examiner has rejected claim 32 under 35 USC § 103(a) as being obvious over Kiliaan (WO 01/84961) in further view of Friedman (US Patent App. No. 2003/0021881) and Ponroy (US Patent No. 6,069,138). Kiliaan and Friedman are discussed above. Ponroy is directed to a composition made from phospholipids which regulates melatonin secretion. The Examiner argues that Kiliaan and Friedman disclose all of the elements of claim 32, except for the inclusion of sphingomyelin in the nutritional preparation. The Examiner argues further that Ponroy discloses the use of sphingomyelin and that, therefore, the combination of the teachings of these three

references renders obvious claim 32. The deficiencies of Friedman and Kiliaan are discussed above. Since Ponroy does not cure these deficiencies it cannot render obvious claim 32. Therefore, this rejection has been obviated and should be withdrawn.

The Examiner has rejected claims 8, 19 and 25 under 35 USC § 103(a) as being obvious over Kiliaan (WO 01/84961) in further view of Friedman (US Patent App. No. 2003/0021881) and JP61078351. Kiliaan and Friedman are discussed above. JP61078351 is directed to microcapsules composed of lecithin. The Examiner argues that Kiliaan and Friedman disclose all of the elements of claims 8, 19 and 25 except for the use of lecithin in a microcapsule. The Examiner argues further that JP61078351 discloses microcapsules comprising lecithin coated with gelatin, and further that the microcapsule particle size is from 10-2000 μm. Claims 8, 19 and 25 have been canceled thus obviating this rejection as applied to these claims. However, the limitations of claims 8, 19 and 25 were incorporated into the independent claims and, as such, the following discussion applies to the independent claims in their currently amended form.

First, Applicant notes that JP61078351 does not contain the particle size disclosure as described by the Examiner. Rather, the disclosure states that the " … particle size of the microcapsules is preferably 10W2,000μm." Applicants cannot determine from the remainder of the disclosure what the "10W" refers to and disagree with the Examiner's unsupported conclusion that it represents "10-." Further, Applicants note that even assuming arguendo that the Examiner is correct, the measurement is referring to the particle size, not the particle diameter as is presently claimed. Again, the Examiner cannot make the unsupported assumption that JP61078351 is actually referring to the particle diameter. In addition, again assuming arguendo that the Examiner is correct, JP61078351 does not disclose the endpoints of the claimed range, and the Examiner has not provided any reasoning why a narrower range would be obvious based on the disclosure of a broader range. Therefore, the Examiner has not

made a proper prima facie showing of obviousness and this rejection should be withdrawn.

The Examiner has rejected claims 23-24 under 35 USC § 103(a) as being obvious over Friedman (US Patent App. No. 2003/0021881) in view of Pardun (Verlag fLir chemische Industrie H. Ziolkowsky KG Augsbur, 1988). Friedman is discussed above. The Examiner argues that Friedman discloses all of the elements of claims 23-24 except for the methods of cholesterol reduction, hyperlipidemia and dysfunctions of learning and aptitude. The Examiner argues further that Pardun teaches these missing limitations and thus the combination of Friedman and Pardun renders obvious claims 23-24. However, the deficiencies of Friedman are discussed above and Pardun does not cure these deficiencies. Therefore, this rejection has been obviated and should be withdrawn.

The Examiner has rejected claims 14, 33 and 40 under USC § 103(a) as being obvious over Kiliaan (WO 01/84961) in further view of Friedman (US Patent App. No. 2003/0021881) and Geiss (US Patent App. No. 2004/0120985). Kiliaan and Friedman are discussed above. Geiss is directed to a food item with a specific phosphatidyl serine content and a specific carbohydrate content. The Examiner argues that Kiliaan and Friedman do not teach the use of the claimed proteins, but that Geiss teaches the use of phosphatidyl serine and that the combination of the two disclosures renders obvious the use of proteins in the claimed food products. This is a non-sequitur. Applicants fail to understand how the teaching of a phospholipid (i.e., phosphatidylserine) could render obvious the use of a protein. The Examiner has not established a prima facie case of obviousness. Further, assuming arguendo that Geiss did disclose the claimed proteins, it does not cure the deficiencies of Kiliaan and Friedman discussed above. This rejection is moot and should be withdrawn.

In view of the foregoing, it is submitted that the present application is now in condition for allowance. Reconsideration and allowance of the pending claims are requested. The Director is authorized to charge any fees or overpayment to Deposit Account No. 02-2135.

Respectfully submitted,

By _/Carolyn L. Greene/_____

Carolyn L. Greene
Attorney for Applicants
Registration No. 57,784
ROTHWELL, FIGG, ERNST & MANBECK, P.C.
1425 K Street, N.W., Suite 800
Washington, D.C. 20005
Telephone: (202)783-6040
Facsimile: (202)783-6031